

Vol. I.

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Agricultural Education

Issue Theme

Classroom Teaching

Special Features at New Orleans

Subjects Under Discussion Before Agricultural Section
of the American Vocational Association

December 5, 6, 7

Objectives in Agricultural Education

Relationships With Educational, Farm, and Business
Organizations

A Program of Research

The National Teachers' Association

Future Farmers of America

The Agricultural Education Magazine

National Contests

Improving Project Records

Publicity

(See complete program on page 2)

*"Teaching may hasten learning; it may also
block it or kill it outright, or sometimes
just render it comatose for years."*

—JAMES HARVEY ROBINSON.

EDITORIAL COMMENT

AGRICULTURAL EDUCATION

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Vol. I. DECEMBER, 1929 No. 12

CLASSROOM TEACHING IN THE VOCATIONAL AGRICULTURAL PROGRAM

IN OUR concern about the other phases of our program we sometimes forget that the major portion of the time of the teacher of agriculture is typically spent in the classroom and that it is in the interests of efficiency that it be so spent.

Classroom teaching is one of the great discoveries of civilization.

A recent author says, "Learning by reflective thinking is by far the most efficient and advantageous method of learning that has so far appeared in the course of evolution." Our work in the classroom is essentially the direction of this process.

Not only does classroom teaching provide a means of shortcutting the learning process for the individual by substituting thinking for the primitive mode of "learning to do by doing," but it enables us to direct groups, rather than individuals, thru the learning process. Rightly managed, it may be a tremendous time-saver for class and teacher.

There is no question but that much of our classroom teaching is very wasteful in comparison with its possibilities. We need to give more thought to making it serve its proper purposes.

There is no implication in the above statement that classroom teaching, even at its best, offers a complete program of vocational education in agriculture. We have been right in emphasizing supervised practice, student organizations, and community work. But, after all, the nucleus of our program is our classroom activity.

PROGRAM OF THE AGRICULTURAL SECTION

OF THE

AMERICAN VOCATIONAL ASSOCIATION

NEW ORLEANS, LOUISIANA

DECEMBER 5, 6, 7, 1929

Place: Chamber of Commerce

Thursday Afternoon, 2 p. m., December 5

Chairman: Professor N. E. Fitzgerald, University of Tennessee, Knoxville, Tennessee

1. Address by C. O. Moser, Secretary and General Manager, American Cotton Growers Exchange, Dallas, Texas.
2. Objectives in Vocational Education in Agriculture—Dr. C. H. Lane, Chief, Agricultural Education Service, Federal Board for Vocational Education, Washington, D. C.
3. Discussion led by J. T. Wheeler, Georgia State College of Agriculture, Athens, Georgia.
4. Relation of Vocational Agriculture to Educational Organizations—Professor H. F. Cotterman, University of Maryland, College Park, Maryland.
5. Relation of Vocational Agriculture to Farm Organizations—Mr. Ray Fife, State Supervisor of Agricultural Education, Columbus, Ohio.

Friday Morning, 9 a. m., December 6

Chairman: R. E. Cammack, State Supervisor of Agricultural Education, Montgomery, Alabama

1. Report of Research Committee on Agricultural Education—Dr. C. E. Myers, State Department of Education, Richmond, Virginia.
2. A Proposed Program in Research—Dr. F. W. Lathrop, Research Specialist, Federal Board for Vocational Education, Washington, D. C.
3. Objectives of the National Association of Vocational Agricultural Teachers—Mr. F. Woeffle, Secretary, Paterson, New Jersey.
4. Review of Activities of Future Farmers of America—Professor Henry C. Groseclose, Executive Secretary, Future Farmers of America, Blacksburg, Virginia.
5. The Agricultural Education Magazine—Professor H. M. Hamlin, Editor, and Dr. Z. M. Smith, Secretary-Treasurer.
6. National Contests—Mr. J. E. Hill, State Supervisor of Agricultural Education, Springfield, Illinois.
7. Brief business meeting.

Saturday Morning, December 7

Chairman: Professor J. G. Lee, Jr., Louisiana State University, Baton Rouge, Louisiana

1. The Improvement of Project Records and Accounting—Professor W. F. Stewart, Ohio State University, Columbus, Ohio.
2. Means of Acquainting Ourselves With the Inadequacies of Our Present Practices in Keeping Project Records and Accounts—W. T. Spanton, Regional Agent, Federal Board for Vocational Education, Washington, D. C.
3. Methods of Improving the Practices in Project Accounting—H. G. Kenestrick, Professor of Agricultural Education, Ohio State University, Columbus, Ohio.
4. What Constitutes Satisfactory Records and Accounts—L. M. Sheffer, State Supervisor of Agricultural Education, Athens, Georgia.
5. A Program in Publicity—Mr. Louis M. Sasman, State Supervisor of Agricultural Education, Madison, Wisconsin.
6. Relation of Vocational Agriculture to Business Organizations—Mr. C. L. Davis, State Supervisor of Agricultural Education, Austin, Texas.

How Important Is Method?

J. A. STARRAK, Iowa State College

IN THIS paper we are not concerned with any one method of teaching but rather with the idea of methods in general. The following definition of the term "method" expresses very clearly what I have in mind and should serve as a guide in our thinking.

"Method is the process of setting up learning activities and of guiding the child in performance of them, so that he may incorporate into his own experience the experience of the race, that in so doing he may develop his own natural powers and take on such habits, ideals, and attitudes as are considered to be socially desirable."

How important is method in education? Method is probably the most important factor in the educational process with the sole exception of the personality of the teacher. So greatly does the personality of the teacher condition his method that it is extremely difficult to divorce the two.

But it can be done, at least partially, and when we do take the method aside and study it carefully we find that it is much more important than the materials of teaching—the knowledges, and skills, the buildings, and the equipment. We find that the behavior of our pupils will be influenced less by the materials of education than by the manner in which they are utilized by the teacher.

I don't expect my readers to take my word for this and it is not necessary that they do so for I can produce more weighty authority. Glenn Frank, president of Wisconsin University, and widely recognized as an educational leader, has this to say about method:

"We must look for the really creative development of education in the methods of teaching rather than in the materials of teaching . . . The next great advance in education will be marked by an extensive informalizing of the teaching process."

Bertrand Russell's Stand

The English philosopher, Bertrand Russell, numbered among the great by Will Durant in his *Story of Philosophy*, makes the following statement in his book, "On Education":

"More important than the curriculum is the question of the methods of teaching and the spirit in which the teaching is given."

These are clear, positive statements by men of vision, but it is not necessary for us to accept opinions of even such men as these. We should be able to reason it out for ourselves. When we do this we shall discern at least four very significant products or influences of method which serve to establish its signal importance.

First, there is the matter of interest. Teachers of vocational agriculture are too progressive and well trained not to appreciate the very large part which interest plays in efficient learning. But let us pause to emphasize its importance. Does not our experience teach us that the following statements are true?

"You cannot teach anybody anything unless he is interested in that thing."—Edward L. Thorndike.

"There can be no mental development

without interest. Interest is the 'sine qua non' for attention and apprehension. Without interest there will be no progress."—A. N. Whitehead.

"You make a great mistake when you make a boy study something in which he is not interested. If you keep this up until a boy is 14 years of age, his brain is impaired forever."—Thomas A. Edison.

Interest a Product of Method

Much more could be said with reference to interest, but let us clinch our argument here. Interest is a product of method rather than of subject matter. There is probably no school subject which cannot be made interesting to the normal child by the skillful use of the appropriate method, nor is there any subject, no matter how inherently interesting it may be, which cannot be made very uninteresting by poor teaching. I know a Latin teacher who makes this subject actually thrilling to her students and I have seen manual arts work become a dead and boring thing in the hands of not a few teachers of that subject. I think it was Chesterton who said, "There are no uninteresting subjects; there are only uninteresting teachers."

A Second Significant Product of Method Is Understanding. This is a condition which, I am confident, we would all agree, is essential to true learning on the high school level. To what extent is understanding the product of method? Almost entirely, it would seem. School subjects on the level to which they are carried in high school are probably comprehensible to the normal high school student, if properly taught. Any high school subject may, thru improper teaching, become a mere collection of disconnected and unorganized fragments of knowledge without meaning or significance.

Understanding is a product of thinking and is produced in no other way. Thinking is seeing the relations which exists between things or ideas. Whether or not a person sees these relations depends entirely, except in those few cases where the work is beyond the capacity of the student, on the way in which the ideas are presented, i. e., on method. Miller in his book, *Creative Teaching*, expresses the same idea in this wise:

"If the curriculum presents in one isolated corner of specialization, the flower, and in another fenced-in course, the bee, the act of relating (creating)

may not occur to the student, lost in the highly specialized art of mumbling terminologies."

A third product of efficient method is the ability and habit of sound straight thinking. For the purposes of this article the following questions will serve as a guide to our thinking: (1) How important is this ability? (2) Can it be developed by the formal education of the classroom? (3) How large a factor is method in its development? Let us take each one in turn.

First: It should not be necessary to expatiate upon the importance or value of the ability and habit of sound thinking, to a group of well-trained teachers, since it is so patently the outstanding characteristic of all successful people. Moreover, we are all well aware that a great deal of the knowledges and specific abilities which we so laboriously teach our children will become obsolete within a few years. Nor can we come to know, in advance, what the new knowledges and essential abilities will be. How many of you, for instance, would dare to predict how agricultural operations would be carried on in 1960, or what will be known then regarding the breeding and management of plants and animals, the treatment of soils and the like? Yet about that time the boys now in our classes will be in the heyday of their productive life and will have been forced to forget much of what we have taught them and to learn much new knowledge and many new abilities.

Thinking Ability Persists

But they will have at least one thing in common with the present-day farmer. They will have problems to solve and the efficiency with which they solve their problems will determine their success in life as it always has done. Straight thinking is the process by which problems are solved correctly and this fact gives to sound thinking its fundamental importance.

The second question is much more difficult to answer satisfactorily. Anyone upholding the affirmative would seem to be within easy hailing distance of that old venerable theory which, refusing to be buried and forgotten, has bobbed up time after time thru the troubled seas of education ever since the time of Aristotle, under such names as formal discipline, mental discipline, and transfer of training.

Even today, when the theory is but a wreck of its former sturdy self, only our most reckless educational writers come to grips with it. Most of them pass by at a very respectful distance with their eyes turned in the opposite direction.

Space will permit only a very sketchy discussion of this formidable question. We must first differentiate between specific thinking ability and general thinking ability. It seems that specific thinking ability can be developed. This is made manifest in the increased skill in judging livestock or grains which come to our pupils as the outcome of competent teaching in those lines.

But is it possible to develop general

WHY DO WE TEACH?

"The task of education is the building of a mind capable of analyzing problems in the light of facts, and the development of an attitude of tolerance and fearless honesty in the pursuit of truth. Little children are natural thinkers. They have the inquiring mind if not repressed into sudden acceptance and blind obedience. Fortunately the child whose curiosity is not buried alive. Due to the trait of docility, education has been defined as the art of taking advantage of the helplessness of children. The inquiring mind needs encouragement and guidance."—H. L. Miller.

thinking ability, that is, ability which will function in the various phases of the individual's life after he leaves school? We know that it is possible to teach a fact or a specific ability or habit so that it will *not* carry over to dissimilar situations for that phenomenon has been clearly demonstrated many times. But we are not so confident that it can or cannot be taught so that it will carry over. The clearest light we have on the question is to be found in the indisputable fact that *the human mind can and does generalize*. Judd has stated this extremely well in his, "Psychology of Secondary Education."

If there is any carry-over it will be because of the method of teaching, for it has been pretty definitely established by Thorndike and others that no one school subject is superior to any other in the development of intellectual ability.

But it is not necessary for teachers to sit by until this problem is solved. If we teach our own subjects properly, we can develop in our students the ability and habit of thinking well in them and in the activities of adult life to which they relate.

More should be said on this topic but for the present I must be content with again pointing out that it is by the method of teaching the subject rather than by the subject itself that the ability and habit of sound thinking are developed.

Methods Affect Personality

Still another outcome of education which would seem to depend largely on method is the development of desirable personal habits and traits. Anyone must admit the supreme importance of personality. Because the school is only one of the institutions which influence the growth and development of children, we teachers must be modest in our claims in this direction. But whatever the extent of our influence on the personality of our students, it is quite evident that it will result more from the method than from the subject matter. Such desirable traits as honesty, truthfulness, perseverance, sincerity, tolerance, spirit of service, co-operation, modesty, self-confidence—just to mention a few—are not the monopoly of any one school subject. They can be fostered by the teacher of any subject if the proper method of teaching is employed.

Have I exaggerated the importance of method? Have I attributed to it values which it does not possess? I do not believe so. Anything so difficult to perform well as is the art of teaching must be important for only the unimportant and insignificant tasks of life are easy to perform. If this is sound logic then the method of teaching is extremely important for there are few skills more subtle, more exacting, or more difficult to acquire than is the ability to teach really well.

This last surely needs no argument since every one of us must be quite overcome at times by our inadequacy and by our inability to teach as we know it should be done. But let us take courage, for it is an ability which can be developed thru consistent and intelligent practice. Let us get into harmony with the following very fine expression by one of our men of vision:

"I do not know that I could make entirely clear to an outsider the pleasure

I have in teaching. I had rather earn my living by teaching than in any other way. In my mind, teaching is not merely a life work, a profession, an occupation, a struggle: it is a passion. I love to teach. I love to teach as a painter loves to paint, as a musician loves to play, as a singer loves to sing, as a strong man rejoices to run a race. Teaching is an art—an art so great and so difficult to master that a man or woman can spend a long life at it, without realizing much more than his limitations and mistakes and the distance from the ideal. But the main aim of my happy days has been to become a good teacher, just as every architect wishes to be a good architect, and every professional poet strives toward perfection." — *William Lyon Phelps.*

Some Concomitants of Training in Livestock Judging

OLYDE WALKER,
Vocational Agriculture Instructor,
Eagle, Nebraska

THE value of training in livestock judging may extend far beyond the development of ability to recognize good livestock and place a ring of animals correctly. Livestock judging work may well be justified in a vocational agriculture course on the basis of practical judging of stock; but at the same time that the student is learning to judge animals, to place them correctly and tell why he did it, he is also developing other desirable qualities. These concomitant learnings may in time be of more value to the student than the primary learnings.

The student who would be a good judge of livestock must learn to think independently and arrive at his own decisions. The boy who cannot make up his own mind, who is vacillating and always wondering what the other fellow is going to do never gets very far in a livestock judging contest. A reasonable amount of self-confidence coupled with a willingness to think for himself is the first requisite of a successful stock judge, and a successful farmer or business man.

Another important requirement of livestock judging is the necessity for systematic, impartial thinking. Every teacher of vocational agriculture has probably met at least one farmer who based his opinion on one or two factors and ignored others equally or more important. "Snap" judgments and prejudices are a handicap to anyone as the student in stock judging soon discovers. He must learn first of all to see the differences in the animals under consideration, then learn to balance the points in favor of each and finally arrive at a definite conclusion. This learning to weigh facts carefully and impartially will not only help him to judge livestock but will also add immeasurably to his value as a farmer and citizen.

In addition to learning how to place a class of stock, the vocational agriculture student learns to tell why he made such a placing. Anyone may guess the correct placing of a ring of stock occasionally but the successful judge must be able to present his arguments and give his reasons for placing the class as he did.

The boy who overcomes his timidity and learns to stand up before the judge, look him in the eye, and tell in a clear and confident manner why he made such a placing has learned more than merely

giving reasons on a class of stock. He has gained an ability of self-expression that will enable him to express his opinions and help to make him a leader among the farmers of the future.

Agriculture has had plenty of volunteer spokesmen in the past but there is still room for capable representatives from the ranks of the farmers themselves.

The attitudes and abilities touched upon above are not and cannot be taught entirely thru livestock judging. The teacher of vocational agriculture should have them in mind as a part of his objectives in teaching thruout the entire course; but thru the interest that can be readily aroused in livestock judging he can greatly accelerate the development of these attitudes and abilities while teaching something that is worth while in itself.

California Teacher President of State Fair and Chairman of State Board of Agriculture

ONE of the greatest assets to the agricultural program in the state of California has been the outstanding work in agriculture done by one of its teachers. Mr. Robert Condee, who was formerly an agricultural teacher in the Chaffee Union High School, became principal and director of vocational agriculture at the Chino Vocational High School. His success there in the development of fine herds of dairy cattle, hogs, and other agricultural products, thru his agricultural standards, won for him great recognition among the leaders of agriculture in California. After holding many offices in the various agriculture associations, he was made one of the directors of the California State Fair. Not long after being made director, he was elected its president and since that time the California State Fair has progressed very rapidly. It is needless to say that Mr. Condee has been a great asset to the people of the state in the promotion of agriculture in connection with the State Fair.

At the last session of the legislature, a bill was passed creating a State Board of Agriculture to be responsible for the activities of the State Department of Agriculture, probably the largest state department in California. Mr. Condee was appointed a member of this Board and is now the chairman of both the State Fair Board and the Agricultural Board, two separate bodies.

Manual for Marketing Schools

THE Division of Vocational Education of the Arkansas State Department of Education has just issued a manual for the use of teachers in conducting evening schools in the marketing of farm products. Mr. E. B. Matthew, state supervisor, and Professor R. W. Roberts of the University of Arkansas are joint authors.

Professor F. L. Griffin, who is in charge of non-degree instruction at the California College of Agriculture, has assumed responsibility for the work in agricultural education as well until a successor to Professor H. M. Skidmore can be chosen.

Methods of Teaching in Vocational Agriculture

E. R. ALEXANDER, A. and M. College of Texas

WORKERS in the field of vocational education in agriculture have not agreed as to the methods that should be used in teaching classes in vocational agriculture. It is equally true that we have not agreed as to what the fundamental principles are that should guide teachers of vocational agriculture in their choice of methods to use in teaching their classes.

The following reasons are offered to explain this lack of agreement:

1. We are not in active agreement as to the purpose of instruction in vocational agriculture.

2. Too many of us are still thinking in terms of ideas and standards that prevail in the general field of secondary education with respect to what are acceptable methods of teaching.

3. As supervisors, teacher-trainers, and teachers of vocational agriculture we have been influenced also, both knowingly and unknowingly, by the methods of teaching used in colleges of agriculture.

4. We have not been guided by a common understanding of the principles that should guide us in our attempt to evaluate methods of teaching.

Altho section 10 of the Smith-Hughes Act says specifically, "That such education shall be of less than college grade and that it shall be designed to meet the needs of persons over 14 years of age who have entered upon the work of the farm . . .," yet we are enrolling in our classes those boys who admittedly have no intention of farming, and still others who are uncertain about the matter. The presence of these two more or less uninterested groups has caused us to teach general agriculture altho we may have called it animal production, plant production, etc.

If instruction in vocational agriculture is to be made as effective as it is possible to make it, then our methods must be adapted solely to the needs of the group that has definitely decided to farm.

Non-Vocational Influences

It is easy to understand why we have been hindered in the development of sound methods of teaching in vocational agriculture by the point of view of workers in the non-vocational field of secondary education. This influence may be explained as follows:

1. Many now working in agricultural education were first trained in the point of view of non-vocational thinkers.

2. Many of us had worked for several years in the non-vocational field.

3. We thought of training boys how to live, forgetting that it is just as essential to train them how to make a living.

All of this resulted in our bringing over bodily from the non-vocational field our ideas of methods of teaching and using them in our courses of vocational agriculture.

We have been influenced also by the fact that so much of the teaching in the non-vocational classes "has emphasized learning thru the memorizing of infor-

mation, rather than thru reasoning; information has been acquired for its own sake, rather than as a means to modify conduct; no special effort has been made to provide a natural setting for the learning; the learning has usually been realized thru a mastery of principles logically arranged, rather than by developing the principles as needed in the problematic situation."

It is quite evident that the experience of twelve years has not eliminated this hindering influence.

It is true now that comparatively few teachers in the schools of agriculture think of their teaching other than of the necessity of requiring their students to learn so much subject matter, and carry out so many formalized exercises in the laboratory. As some critics have put it, these teachers have taught as tho each member of the class were preparing himself to become a specialist in the instructor's own field.

Colleges Influence Methods

Our teachers of vocational agriculture usually have spent four years studying courses in the schools of agriculture. Only rarely are some of those courses taught by men who have even a theoretical understanding of the problems that the teacher of vocational agriculture has to meet and solve in the development of a sound program. In many instances the organization of the subject matter as found in the textbook determines the order and method of presentation.

We are led inevitably to the conclusion, therefore, that agricultural education trainees who spend four years under such influences as are indicated above go out to teach with a bundle of habits that must be destroyed before they can do effective teaching. Only in a few notable instances have departments of agricultural education been able to offset these influences by means of effective participation on the part of the trainees in securing, organizing, and teaching the subject matter that should be included in vocational agricultural courses.

The contention that we have no well defined set of principles to guide us in the formulation of our methods of teaching is supported by the fact that there are three rather clearly defined schools of thought among teacher trainers in agricultural education as to what are acceptable methods of teaching in vocational agriculture. These schools of thought may be indicated roughly as:

1. Teaching by means of enterprise and job analysis. (Incidentally, the writer does not consider job analysis as a method of teaching; it is merely a teaching device.)

2. Teaching by means of the so-called problem method; and,

3. Teaching by means of a combination of the above named two.

It seems to be a rather simple matter to say just what factors should guide us in our choice of methods. These factors are:

1. Purpose of the instruction in vocational agriculture.

2. Nature of previous experience and training of the members of the classes in vocational agriculture.

3. The situation on the home farms of the members of the class.

4. Student processes of thinking, doing, and feeling.

It is not necessary to discuss further the purpose of instruction in vocational agriculture other than to say that if we continue to admit boys to our classes who have not definitely decided to farm, their presence should in no way affect the methods used. Even tho the presence of this type of student may greatly increase the difficulty of instruction, the teacher should teach his classes as if every member had decided that he is to farm for a living.

All of us have accepted heartily (in theory) the principle that we cannot do effective teaching in vocational agriculture without taking fully into account the previous experience and training of the members of the class. Whatever practical application we have made of this principle has been in a very general or indirect way.

It is one thing for a teacher of vocational agriculture to say that it is necessary to consider the previous farm experience and training of the members of his classes, but it is indeed quite another thing for that teacher, first, to discover just what previous farm experience and training his boys have had, and then to involve those experiences effectively while he teaches.

We need a method of teaching that will enable the teacher to involve this previous training and experience, as well as the situation on the boy's own home farm, and do so in a more or less automatic way.

The Boy Is a Factor

Perhaps it is trite to say that whenever we think of methods of teaching we must think of them in terms of the subject matter to be taught. It is also just as necessary to consider a third factor, the boy and his way of doing, thinking, and feeling.

Workers in the field of agricultural education will unanimously accept the immediately foregoing statements as true, but the writer is convinced that we are thinking in terms of principles rather than in terms of their application; that we are talking about doing the thing rather than actually doing it.

As the teacher of vocational agriculture approaches the problem of deciding just what methods to use he must answer the following questions:

1. What is the purpose of this instruction?

2. What is the situation on the home farms of the boys in my class?

3. What farm experience and training have my boys had?

4. How can I involve this training and experience in an effective way? (Make external connections)

5. How do my boys think about such problems as I am to teach?

6. What are my boys interested in?
(a) That concerns the home farm. (b) That does not concern the home farm.

7. How can I lead them to feel a need for the thing I am to teach them?

8. How can I develop permanent interest in the problems I am to teach?

9. How can I replace memorization with interesting thinking?

10. How can I create and maintain suspense?

11. How can I lead my boys to develop the ability to think well?

12. How should I introduce my problems?

13. What kind of questions should I ask?

14. How should I ask these questions?

15. How can I keep my instruction well knit together? (How can I make internal connections?)

16. How can I measure the results of my teaching?

The remainder of this discussion consists of a descriptive illustration of the application of the principles involved in the foregoing "16 questions." Altho this material was prepared with Texas conditions in mind, the writer believes that the same plan, with necessary modifications to meet local needs, can be used successfully in any first year class in vocational agriculture.

Furthermore, the members of the teacher training staff at the Agricultural and Mechanical College of Texas have seen demonstrated to their own satisfaction the practicability of using the methods of teaching involved in the following suggestive procedure, both in introducing the course and in teaching farm problems thruout the year. This conclusion is based upon their use in the following situations:

1. By the teacher in charge of the demonstration class located at Bryan, five miles from the college.

2. By trainees doing practice teaching in schools located out in the state.

3. By first-year teachers in the field.

4. By experienced teachers in the field.

Introducing the Supervised Practice Program

The Situation:

The class consists of a group of first year boys who have enrolled presumably because they are interested in the course.

The Approach:

It is just as essential for a teacher of vocational agriculture to do good teaching the first day he meets his class as it is on any other day. He realizes that if he is to do good teaching, he must

A. Arouse interest;

B. Lead his boys to do good thinking, and also

C. Lead them to think of the home farm situations.

By leading the class to think of the home farm, he is utilizing that principle of learning which may be expressed as "Beginning with the known and going to the unknown."

He faces the necessity of leading his boys to see a reason for talking about conditions on their home farms. He might find it worthwhile—

A. To tell the boys that he wanted to get better acquainted with conditions on their home farms, or

B. To suggest that they might want

to know more about each others farms, or

C. To suggest that they might find it worthwhile to study their own farms in order that their work in vocational agriculture could be used at home.

After this very simple preliminary statement, he asks such simple questions as the following:

A. What kind of livestock do you have at home?

B. What feeds do you grow for these livestock?

C. What other crops do you grow?

Enrollment Form

Following these questions he may ask them if they would fill out the following form:

A. Name

B. Age

C. Size of farm

D. Acres in cultivation

E. Kind of livestock (check kinds)

(a) Beef cattle

(b) Dairy cattle

(c) Hogs..... (d) Horses.....

(e) Mules..... (f) Sheep.....

F. Kinds of crops (list crops)

(a)..... (b)..... (c).....

(d)..... (e)..... (f).....

Note: Those who do not live on farm and who say, "What am I to do?" should be asked to come by the desk to talk with the teacher. If the teacher feels that these boys are really interested, he can test their interest by suggesting that perhaps they might like to get the desired information from a farmer they may know. If they do not care to do this, perhaps they should be eliminated from the class.

Note: After the boys have filled out the first "form" they should be led to classify the items of information secured on that form. This will enable them to get a very general idea of the community farm situation.

The teacher's problem at this point becomes one of leading the class to see the need for securing additional facts about their home farms.

He may attempt to arouse this feeling of need—

A. By making a backward connection to the reasons suggested previously for talking about conditions on the home farm.

B. He may also ask the questions:

(1) "How many of you boys think the farmers of this community are making as much money off the farm as they ought to make?"

Perhaps the answers will be about as follows: "Very few, if any of them, are doing so."

(2) "I wonder if we can suggest some reasons why this is true?"

The answers likely will be in general terms and, therefore, unsatisfactory.

(3) "Take dairy cattle, for example, would it be necessary for us to find out something about the dairy cattle on the farms before we would be able to say why the farmers are not making more money from them?"

(4) "What are some of the things you think we need to know in

order to answer this question?"

Note: From these suggestions the teacher will select the points that he thinks should be included on the second form that the boys are to fill out. He will draw out similar points for each enterprise that is to be included in the study. For example, the class may decide that all that they can get will be numbers of animals and production per animal, since in most cases, the farm records will not include more than that. Likewise, he will lead the class to agree that they need to get acreages and yields on crops.

Hands Out Forms

After the second forms are returned, the class again should classify the data, determining average yields per acre for crops, and average production per animal. While this is being done, the boys will have an opportunity to compare data from their own farms with those from other farms represented by members of the class.

Further Use of Data

A. Compare home farm data with teacher's farm survey summary for points of similarity and difference.

B. Compare home farm data and teacher's farm survey summary data with situations outside the home community and in this way lead boys to discover weaknesses in home farm situations. (Perhaps data from Master Farmer Contest would be suitable.)

C. Lead class to classify these weaknesses in order to prepare the way for stating the local farm problems.

D. Lead class to say that these problems need to be studied.

E. By skillful questioning lead them into a study of one of the farm problems.

Determining the Order

After the class has been led to discover the local farm problems, the teacher faces the necessity of deciding the order in which these farm problems shall be studied. Perhaps a consideration of the following factors will enable him to reach a satisfactory conclusion:

1. *Seasonal Sequence.*

Is it the time of year when the farmer should be making a special effort to solve the problem?

2. *Difficulty of Solution of Problem.*

Is the problem too difficult for the boys to attempt to solve at this time?

3. *Frequency of Occurrence of the Problem on the Farms Represented by the Boys in the Class.*

Is it reasonable to suppose that the teacher can secure better results in his teaching if the members of his class recognize the problem as one that needs to be solved on each of their farms?

4. *Appeal That the Problem May Make to the Interests of the Boys.*

The teacher can secure a greater degree of worthwhile interest early in the course if he chooses a problem at the beginning that will appeal to the boys.

5. *Project Possibilities That May Be Revealed by a Study of the Problem.*

Since the teacher is interested in lead-

(Concluded on page 16)

Training Evening School Teachers in Conference Methods

W. T. SPANTON, Agent, Federal Board for Vocational Education, Pacific Region

WHEN we think of the job of a teacher of vocational agriculture we ordinarily think of his duties and responsibilities in connection with his regular, all-day school program.

Unfortunately, in too many instances even that has been regarded as a classroom teaching responsibility rather than a complete program of training, "designed to meet the needs of persons over 14 years of age who have entered upon, or who are preparing to enter upon the work of the farm."

Such training certainly involves instruction, not only in the economic production of farm commodities, but also in the orderly marketing of those commodities.

In dealing with groups of adult farmers everyone recognizes the need for using different methods from those employed in our regular all-day school program. These men are more mature and experienced in the practice of their occupation and are seeking only such information or training as will be of immediate assistance to them.

In the case of an evening class in co-operative marketing, for instance, a group of farmers may possess more practical information based upon their own participating experiences and may have a broader knowledge of the entire field of co-operative marketing than the teacher himself. In the handling of such groups it would be dangerous if the teacher attempted to organize and conduct an evening class in co-operative marketing according to regularly established instructional methods. In spite of such circumstances there is still a great opportunity for service to such groups if the course is conducted on the conference basis.

First Training Conference

The first attempt of the agricultural agents of the Federal Board for Vocational Education to give any specific training in methods of conference leading came about as a result of the direct request of Mr. J. A. McPhee, state supervisor of agricultural education in California. In that state it appeared that there were quite a large number of co-operative marketing associations which were confronted with problems that seriously threatened their continued existence. The ignorance, suspicion, and lack of morale among the membership of these associations constitute some very grave and important problems.

Mr. McPhee was of the opinion that these problems could only be solved thru a campaign of education. It was finally decided that the agricultural teachers in the state of California, if properly equipped, could do much toward educating the members of the various co-operative associations, thereby assisting the leaders of these associations in some of their reorganization problems.

It was recognized at the outset that the traditional method of instructing farmers in evening class thru lectures,

etc., would be very dangerous, because in this particular field of work very little information has been put into practical teaching form and, in addition, very few teachers have had a sufficient background of training and experience to undertake the offering of courses of instruction in co-operative marketing with sufficient confidence to assure any degree of success.

Teachers Convened

In addition, it was felt that one of the greatest needs among the farmer members of the co-operative was for a program of education which would better train them to think thru some of their problems and by pooling their experiences they might be able to overcome many of their difficulties.

Consequently, Mr. McPhee called a meeting of a few of his outstanding teachers of vocational agriculture in the San Joaquin Valley, which met in the State Department of Education rooms in Sacramento, California, March 11 to 15. Mr. McPhee requested that I come to California to give this course of training to his teachers.

In preparation for this training conference the other agents of the Federal Board for Vocational Education were consulted, as well as Dr. Charles R. Allen, the educational consultant of the Federal Board for Vocational Education, and Mr. McKay, specialist in co-operative marketing for the United States Department of Agriculture.

A small mimeographed bulletin on conference leading was developed and passed out to the men on the first day of the training course. This material was read over and discussed very carefully in order that the trainees might be able to clearly differentiate in their own minds between the various educational procedures and the conference procedure. This was followed by a discussion of specific jobs of a conference leader, characteristics of the average adult group as compared with the high school group, desirable working conditions, such as physical condition, length of meetings, size of the group, the make-up of the group, etc.

Various conference devices were then discussed in some detail, after which definite topics were assigned to each man who was later to be held responsible for conducting a conference of not less than 30 minutes or one hour on this particular topic, using the balance of the training group as participants in the conference.

After each man had had an opportunity to serve as conference leader, time was taken to head up the discussion and to call for criticisms by other members of the conference group on the methods and devices used by the man who was serving as conference leader.

This training conference in California continued for an entire week and we worked every day from 8 a. m. to as late as 5:30, and in some cases 6 p. m. before quitting. At the close of the week

each man who was taking the course in conference leading had had at least two chances to serve as conference leader of the group. In other words, the entire training course was placed upon a participating basis for I assumed that it would be impossible to develop any real doing ability on the part of these men unless they actually had experience under supervision.

A total of 15 teachers participated. According to later reports by Mr. McPhee, practically all of them have gone back to their own local communities and have successfully conducted a series of conferences with members of local co-operative marketing associations. Mr. McPhee further states that all of these men are very enthusiastic over the proposition and are thoroly sold on the idea of using conference methods in connection with their evening class instruction with adults. In addition, many of the men claim that their methods in their all-day school work have been greatly modified as the result of this training course and that, to a very great extent, conference devices and methods can be used satisfactorily but of course not to such a great degree with their all-day school groups.

Use at Baton Rouge

As stated before, this training conference in California was held in March, 1929. Since that time the agricultural agents of the Federal Board for Vocational Education were called upon to render a similar service in the training of teachers in conference methods, particularly for service in the field of co-operative marketing, in Baton Rouge, Louisiana, the latter part of July and the first part of August of 1929, at the University of Louisiana, in connection with the meeting of the American Institute of Co-operation. Over 150 teachers of vocational agriculture from various sections of the country, particularly the states of the Southern Region, were in attendance at the meetings of the American Institute of Co-operation, 90 of whom remained for the four weeks' course, for which they secured graduate credit.

This group of men was divided into six different sections and each of the three agricultural agents, namely, Mr. W. T. Spanton of the Pacific Region, Mr. R. D. Maltby of the Southern Region, and Mr. J. A. Linke of the North Central Region, was assigned to two sections for the purpose of conducting this training course in conference methods.

Because of the increased interest that has been given to the cause of co-operative marketing by the emphasis placed upon it by the Federal Farm Board, and because of the importance of the educational program which is recognized in the Federal Act passed by Congress when the Federal Farm Board was established, it seems to me that teachers of vocational agriculture thruout the

(Concluded on page 19)



Future Farmers of America



The Vocational Agriculture Students Congress

By SHERMAN DICKINSON

KANSAS CITY, Missouri, "The Heart of America," throbbed in increased tempo for the three days of November 18, 19, and 20. The biggest and finest aggregation of vocational agricultural students ever assembled in one group thronged its hotel lobbies, paraded its streets, and visited its many centers of interest. The people knew that the Fourth Annual Congress of Vocational Agricultural Students had convened.

Two thousand boys from 35 states made this city their mecca, with the American Royal Livestock Show as the principal magnet. California and New Jersey, Florida and Minnesota yelled together, sung together. Missouri and Kansas furnished the largest number, but other nearby states sent good-sized delegations.

The Federal Board for Vocational Education was represented by Mr. C. M. Henry, agricultural member, and by Mr. P. W. Reeves, labor member. These gentlemen were interested spectators of the various events and enthusiastic in their comments upon the behavior and appearance of the boys.

The parade in the arena of the American Royal pavilion was the most spectacular event of the Congress. The parade was presented before a crowd of 12,000 people and called forth much applause. The white uniformed students' band and drum corps of Parsons, Kansas, led the way. The prize-winning calves in the vocational show were then led in and ranged about the speakers' stand in the center. Next in line came the 29 boys who were to receive the coveted degree of American Farmer, headed by Leslie Applegate, president of the Future Farmers of America. These boys, together with the 30 judging teams, were also grouped in the center of the arena. Seventeen hundred vocational students with flags, banners, and descriptive signs marched round and round in columns of fours until all were in the arena when they were brought to a halt.

Mr. W. A. Cochel, editor of the Weekly Kansas City Star, was broadcasting a descriptive talk regarding vocational agriculture over WDAF as the boys filed in. The Honorable Arthur F. Hyde, who was to have been present, had been recalled to Washington. His talk was splendidly presented by Mr. J. C. Swift, president of the American Royal. The vocational boys, under the direction of one of their number, William R. Showalter of Mishawaka, Indiana, gave 15 rahs for Secretary Hyde. Mr. Hyde wired his appreciation as he had heard the yell over the wire.

Editor Cochel then announced the winners of the state and national Star Farmer awards and the American Farm Journal awards.

I find it impossible to forget my one outstanding impression of this gathering of vocational students and Future Farmers of America. They were the finest appearing group of boys with whom I have ever come in contact. The Future Farmer delegates and the American Farmer candidates were outstanding in their appearance. They were intelligent, cheerful, healthy, energetic, and gentlemanly. Leslie Applegate of New Jersey, past president, F. F. A., and Wade Turner of North Carolina, new president of F. F. A., were typical of the group. I'm sure there could be no finer boys anywhere. The hope of American agriculture lies in the leadership of such young men as these.—Sherman Dickinson.

The boys gave a final yell expressing their thanks to the American Royal, Kansas City Chamber of Commerce, and other organizations which contributed to their good time while in the city.

The banquet Wednesday night was attended by about 400 students and guests. Dean F. B. Mumford of the Missouri College of Agriculture gave the principal address. He stressed the importance and value of education in agriculture and gave the boys a vision of opportunities for men adequately trained in that field.

Lester Maddox, vocational agriculture teacher of Butler, Missouri, sang two numbers at the banquet. Both were well received, the Cow Boy Spiritual being particularly well applauded.

Snapshots of Personalities

Dr. C. H. Lane, chief, agricultural education, was on the go at all times attending to his many responsibilities.

Bob Maltby's genial smile was much in evidence as he rendered valuable service in various capacities.

John Linke organized the livestock judging contest, wound up his assistants and kept them on the job effectively.

Bill Ross, new Federal Board agent, was always on the job. He was ringmaster for the judging contest and was in charge of the program broadcast over KMBC.

Lester Pollom, state supervisor for Kansas, ran off the meat identification contest just like clockwork.

C. L. Angerer, state supervisor of Missouri, was in charge of livestock exhibits. He was also the master mind of the big parade and responsible for securing caps and signs for this event.

Henry Groseclose of Virginia, the executive secretary of the F. F. A., was an extremely busy man. He should be credited not only as the originator of the F. F. A. idea, but as one of the inner circle which has brought about its practical application.

Guy E. James, supervisor for Missouri, was in charge of publicity. His work on the state displays was extremely effective.

G. J. Dippold of Missouri kept the

registration machinery in efficient operation.

E. E. Gallup, supervisor for Michigan, rendered valiant service in helping to quell too much boisterousness which occasionally cropped out among the boys.

Ray Cuff of Kansas City, superintendent and contact man, was ever ready to do what he could to make us contented and happy.

J. C. Swift, president of the American Royal, was wonderfully co-operative and a most agreeable host.

George Catts, agricultural commissioner for the Chamber of Commerce, had his hands full in transporting and feeding the 2,000. He was one of the busiest of our many hosts.

Bill Kerr of Idaho and E. B. Nelms of Oklahoma, members of the National Committee, were present and active in keeping the track clear and the program running on scheduled time.

Prof. H. O. Sampson of New Jersey was particularly busy in assisting in the F. F. A. meetings.

Other dignitaries in agricultural education who were present and active were Dr. J. D. Blackwell of Maryland, W. J. Weaver of New York, A. P. Davidson and L. F. Hall of Kansas, R. B. Smith of Arkansas, Paul Chapman of Georgia, J. E. Hill of Illinois, George W. Reavis of Missouri, LeRoy Clements of Nebraska, H. T. Hall of Iowa, J. B. Rutland of Texas, and J. G. Lee of Louisiana. (If any names are omitted, I'm sorry. I'm too tired to think straight, but the editor wanted this stuff "right now.")

Honorary American Farmer degrees and keys were conferred upon Dr. C. H. Lane, Prof. H. O. Sampson, Prof. Henry C. Groseclose, and Supervisor W. S. Newman for services rendered the Future Farmers of America. These four men are as proud of the honor as are the boys—and justly so. The keys are the most attractive I have ever seen.

The F. F. A. chapter team from Holland, Virginia, broadcast the ritual ceremony over KMBC Wednesday noon. This ritual is very impressive and should be an inspiration to the student participating. The Holland, Virginia, chapter received the \$500 American Farm Journal prize as the outstanding F. F. A. chapter of America.

A group from Iowa consisting of D. M. Hall, vocational teacher at Newton; and Ralph Miller and Stanley Balloun, representing the Iowa State College Agricultural Club, flew to Kansas City in a Traveaire plane lent them by Harry Ogg of Newton. They claimed that even the air was noticeably different in Missouri.

Seven railroads were instrumental in making the Congress a success. These lines provided 201 vocational boys with free trips to Kansas City on the basis of achievements of various kinds. These railroads were given recognition at the banquet.

Newspaper Account of Arena Scene

THE background of the Tuesday evening meeting was described as follows by The Kansas City Star:

"The audience of 6,000 persons, filling the pavilion bowl to the brim, had been applauding spirited entries in the night horse show, the most aristocratic horses of the nation. Riders and drivers were dressed to the fashion; harness and rigs glittered as the splendid horses circled the tanbark.

"Then there was a pause. The arena was cleared. West gates were thrown open. With a rumbling flourish, the drum and bugle band of the Parsons, Kansas, high school, swung into view.

"A platoon of girls in outdoor costumes of linen and high boots led the band with a roll of deep red drums. Behind the band walked boy farmers leading stock they had cared for before school and after school for the last month. Heifers and bulls wore blue, red, or white rosettes on foreheads, symbols of their victories in the American Royal's judging.

"Behind the stock marched state delegations of American Farmers, the first-class scouts of the national vocational agricultural students' organization, Future Farmers of America. Each group walked under the banner of its own state. Some delegations carried placards:

ONE THOUSAND SEVEN HUNDRED
FIFTY HIGH SCHOOL BOYS
IN ATTENDANCE

ONE HUNDRED SIXTY THOUSAND
GRADUATES NOW FARMING

"Every boy wore the blue cap of a doughboy with 'F. F. A.' sewed on the side. They were warriors, indeed. They were fighting in the early morning hours and late dusky hours of summer and winter, fighting the battles of the American farmer. Their faces were tanned; their sinews developed; there was a kindly light in their eyes. No pretense, no style. What they had achieved was down in black in a bankbook or stored in the granary or silo or lowing right there in the arena.

"In those ranks, indeed, were the future farmers of America. Upon those boys, the audience knew, would depend much of the nation's bread and butter and beefsteak 10 years hence. Applause started with a patter, then grew into a roar as the arena filled with the soldiers of the soil."

New Officers

Wade Turner, Lillington, North Carolina, president; Paul Zillman, Salisbury, Missouri, student secretary; Charles Pinkney, Webster, New York, first vice-president; Harry Wellhausen, Twin Falls, Idaho, second vice-president; Gray Miley, Plant City, Florida, third vice-president; Boyd Waite, Winfield, Kansas, fourth vice-president; Professor Henry C. Groseclose, Virginia Polytechnic Institute, Blacksburg, Virginia, executive secretary; Dr. C. H. Lane, chief in agricultural education, Federal Board for Vocational Education, Washington, D. C., adviser.

"American Farmers" Chosen

Boyd Waite, Winfield, Kansas; Herschel Hecker, Prospect, Ohio; Philip Alampi, Glassboro, New Jersey; Ed-

SECRETARY HYDE'S MESSAGE

"The possibilities of the Future Farmers of America are immeasurable. Thru their leadership we may expect a new agriculture—an agriculture lighted by science and organized to demand an equal share with industry in the country's general prosperity. There is no more hopeful sign of progress among our rural population.

"Rural leadership is the outstanding need of the hour. It will continue to be the greatest need in the future. Much of the hope for improved farming conditions lies in co-operative enterprise and successful co-operation depends on leadership.

"May I remind you, however, that your opportunity for real leadership will come largely thru the example you set as an efficient farmer and as a good citizen in your home community."

ward Buford, Amherst, Virginia; Elmer Williams, Dixon, Illinois; Howard Hill, Albion, New York; T. F. Kidd, Jr., Rural Retreat, Virginia; R. B. Storey, Courtland, Virginia; Jesse Woodward, Danville, Arkansas; Carldon Patton, Wooster, Arkansas; Ronald Ford, Helena, Oklahoma; Lowell Edington, Napa, California; Jewell Biswell, Claremore, Oklahoma; Oscar Schienl, Salisbury, Missouri; Charles Pinkney, Webster, New York; Paul Zillman, Salisbury, Missouri; Horace Smith, Davidson County, Tennessee; Bryce Tucker, Denison, Iowa; Jay Winkelman, North Sanpete, Utah; Edwin Johnson, Assumption, Illinois; Alvin Reimer, Beatrice, Nebraska; Don Godsey, Yuma, Colorado; Gray Miley, Plant City, Florida; Wade Turner, Lillington, North Carolina; Lynn Peak, Tennessee; Harry Wellhausen, Twin Falls, Idaho.

Judging Contest Winners

Thirty state teams participated in livestock judging and 20 state teams in meat judging.

Winners in all classes of livestock judging were: First, California; second, Colorado; third, Idaho.

Winners in meat-judging were: First, Illinois; second, Colorado; third, Kansas.

Alvin Steffensen of Brush, Colorado, was high individual in judging livestock and his teammate, Louis Norman, also of Brush, tied with Tryon Rosbrook of Dixon, Illinois, for individual honors in meat judging.

The \$1,000 scholarship prize offered by the Kansas City Merchants' Association to the three high ranking students in livestock judging was divided as follows: Alvin Steffensen of Brush, Colorado, \$500; Edwin Larson of Firth, Idaho, \$300; and Raymond Sauvell of Fairfield, Iowa, \$200.

Star Awards

Carldon Patten of Wooster, Arkansas, was adjudged winner of the \$1,000 prize awarded by the Weekly Kansas City Star to the outstanding Future Farmer of the year.

Other winners of state titles and prizes in this contest were Boyd Waite of Winfield, Kansas, and Oscar Schienl of Salisbury, Missouri, \$200 each; Ronald Ford of Helena, Oklahoma, Alvin Reimer of Beatrice, Nebraska, Don Godsey of Yuma, Colorado, and Bryce Tucker of Denison, Iowa, \$100 each.

National Speaking Contest

DR. C. H. LANE has announced that arrangements will probably soon be completed for a national public speaking contest for Future Farmers.

Local, district, state, and regional contests would lead up to the national event which will probably be held at Kansas City at the time of the 1930 Congress. Expenses of state representatives to the national contest have already been assured.

The purposes of such an activity are outlined by Dr. Lane as follows:

1. To develop rural leadership;
2. To strengthen the confidence of the farm boy in himself and his work;
3. To encourage recreational and educational activities for students of vocational agriculture.

Such contests have already been developed on a state basis in New York, Ohio, Maryland, and Nevada. Illinois is conducting a speaking contest this year.

Gold medals were presented to the 36 Missouri vocational boys who achieved in the litter production contest this past season. An all-time record for Missouri was announced in the production of 3,499 pounds with a litter of 13 purebred Spotted Polands in 180 days by John Batt of Grant City, Missouri.

We shall do well to be extremely careful to avoid the charge of duplication of effort as we plan the Future Farmer program. We must emphasize service to and co-operation with existing organizations. It should be true that, where our organization is, other worthy organizations flourish better because of its influence. But with all these other organizations operating there is still an enormous field which we may still occupy without apology and without incurring fair criticism.

Nevada organized its association of Future Farmers on October 25 and 26. Lavon Jensen of Virgin Valley is president.

Minnesota is now fully organized for Future Farmer work with Dr. A. M. Field of the University of Minnesota as adviser. State-aided departments of agriculture, rather numerous in the state, are allowed to have affiliated or subsidiary, but not regular chapters.

Professor H. H. Gibson, head of the department of agricultural education of Oregon Agricultural College, was among those who attended the Land Grant College Association meeting at Chicago early in November.

More than 800 boys attended the annual state high school agricultural contests held this fall at the University of Wisconsin.

Mr. Ivan G. Fay, formerly teacher of vocational agriculture at Whitewater, Wisconsin, has succeeded V. E. Kivlin as itinerant teacher trainer for that state. Professor Kivlin replaces Professor E. M. Tiffany in the resident work at the University.

The Long Time Project

A Report of an Outstanding Achievement by a Utah High School Boy

E. B. GARRETT, Agricultural Teacher, Lehi, Utah

HAPPY is the boy who early in his high school career really finds himself in this wild world of ours. I mean it is another victory for the local community when the school system assists the boy in the discovery that he has a real interest in some phase of agriculture.

Such was the case with Herschel Manning of Lehi, Utah. I well remember when Herschel entered the ninth grade in high school. He had a very hazy idea of the whole field of agriculture. He didn't know what he wanted to do. His father didn't "choose" to have his boy follow agriculture. Herschel was encouraged to visit different types of farms and study the possibilities. After some thought and consideration he was finally attracted to the poultry industry.

His first adventure was a loan of \$27 from his brother with which he bought 200 White Leghorn chicks. These were grown out with a small loss and a net profit of \$68.11 for the year's work.

The second year 300 additional chicks were bought to increase the flock of layers and in addition 500 Barred Rock chicks were purchased for meat. These additional birds taxed the little old chicken house to its capacity. Herschel at the beginning of the third year built a coop 70 x 24 feet. The following spring 1,600 additional chicks were purchased and an additional poultry house constructed.

Four years have passed and Herschel's inventory shows the following:

| | |
|-------------------------------|-------------------|
| 1,192 laying hens and pullets | |
| valued @ | \$1,087.75 |
| 3 poultry houses valued @ | 1,685.00 |
| 2 brooders valued @ | 40.00 |
| TOTAL..... | \$2,812.75 |

From nothing to \$2,812.75 in four years is good consistent growth. During these four years he has learned the poultry business and is now in a position to earn a comfortable income and expand to larger units. In these four years he completed a four-year high school course and was awarded a \$100 Union Pacific scholarship to continue his work in college.

I am convinced that the long-time program in vocational agriculture is the only consistent program. Investing the yearly earnings and enlarging the farm business affords a growth which is most desirable. More attention needs to be given to investment of earnings. If agriculture is worth while, the earnings expended in increasing the capital in agriculture is more consistent than building up a savings account.

Vocational Interest Study

A STUDY to determine the permanence and the significance of the vocational interest of pupils attending Pennsylvania's rural community high schools is being inaugurated this fall by the rural education department under the direction of Professor C. S. Anderson. Approximately forty schools are co-operating.

All freshmen (both boys and girls) who entered these schools this year have been asked to indicate their present vocational choices. A survey has also been taken of their particular recreational interests, work interests, and study interests. A general intelligence test has been administered to the entire group. These boys and girls, some fifteen hundred of them, will be followed up thru the next four years and their

vocational interests frequently re-checked.

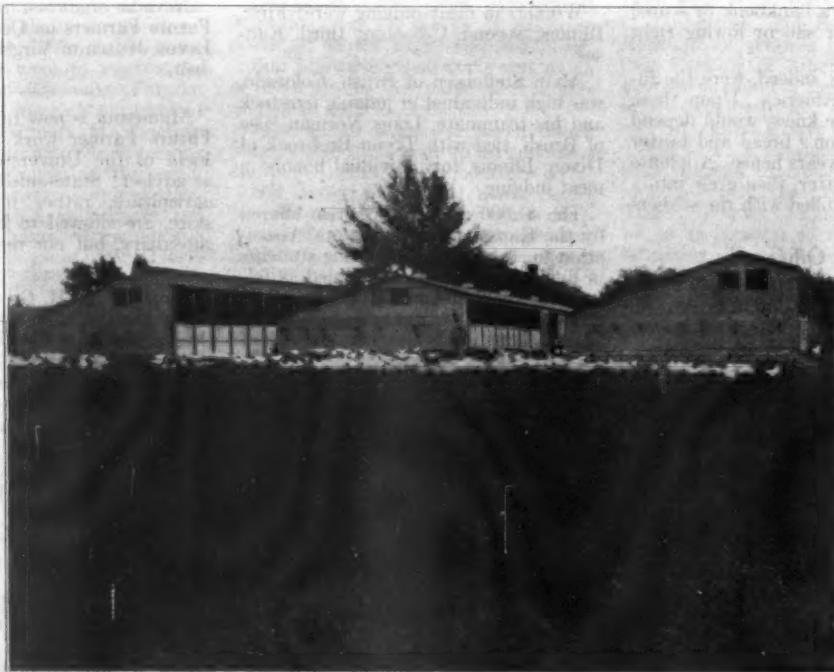
The study is potent with possibilities. It may point out certain of the important influences that bear upon the vocational choices of boys and girls of the rural communities. Significant factors influencing the permanence of vocational choices may be revealed as the study progresses from year to year. It bids fair to cast some light on pupil elimination as related to vocational interest and general intelligence. An analysis of pupils' play, study, and work interests made in connection with their vocational choices offers many research possibilities. Out of the study may grow a justification for more or less emphasis on vocational guidance in our rural high school curriculums.

Results Follow Evening Instruction

RESULTS are appearing from the dairy evening school conducted during the winter of 1928-29 at Foley, Minnesota, by C. H. Benton. Three hundred acres of alfalfa have been seeded, with prospects that this acreage will be doubled next year. A 26-herd cow testing association has been formed and is operating successfully.

The school was attended by an average of 75 persons. The highest attendance was 101. Farmers were drawn from a radius of 25 miles.

This winter Mr. Benton will conduct two evening schools for men. A poultry evening school for women, held last winter, will probably be continued also during the coming year.



Poultry plant of Herschel Manning, Lehi, Utah, developed in four years of project work

Economic Significance in Massachusetts of Vocational Agricultural Education

RUFUS W. STIMSON, State Supervisor

FROM the beginning, vocational agricultural education in Massachusetts has combined *earning with learning*. Sixty-six boys the first year for which state-wide figures were tabulated earned from farming as a part of their schooling \$9,754.28. Seven hundred fifty-eight such learners enrolled in the year ended October, 1928, earned from supervised agricultural and horticultural pursuits and projects \$254,458.15. The grand total of such earnings for the entire period, September, 1911, to October, 1928, inclusive, has amounted to \$2,103,114.73.

Our aim has been to secure returns from projects fully 20 percent above the crop and animal production indexes of the sections served; or pay appreciably above the indexes of less well-trained workers; or a combination of the two. Where boys from village and city homes are employed on school farms, the number is kept down to the number a private farm owner and operator could profitably employ for carrying on the same kinds of productive work, and the equipment and methods are those of the successful farm family of moderately capitalized size.

Two conferences, 1925 and 1926, of the North Atlantic Region, agreed that it is a safe objective to try to put our graduates as far along in mastery of standard farm practices and in managerial ability at the age of 28 as the farmer without such educational aid finds himself at the age of 45.

The Spillman "Agricultural Ladder" survey of 2,000 Middlewest farmers and our Dr. Alexander Cance survey of nearly seven hundred of our better Massachusetts farmers indicate that ordinarily a young man bent on a farming career may expect to become owner in the Middlewest at about 38 years of age and here at about 36.

Not a few of the boys we have trained appear to be beating such averages by from 10 to 15 years. A study of the three sample cases which follow will reveal not only that such is the case, but that some of the achievements of boys in their early twenties are as sound as they are striking. These are records of three village and city boys who had everything to learn and are among our evidences that such boys can profit from vocational agricultural education by the project method. Farm boys are similarly succeeding.

Comparable volume with greater diversification of enterprises is more common than the cases here cited suggest, especially among farm boys. In these cases, all-day and part-time undergraduate training were supplemented by our customary class guidance of graduates during reasonable follow-up periods. In our work, both undergraduate training and graduate follow-up, we have the help of the county agricultural agents and agricultural college specialists at any critical junctures requiring such aid.

CASE II: James N. Skinner, '23—Essex County Agricultural School; born February 1, 1904. School boy to part-

ner; proprietor in floral business in three years; also has fruit, poultry, and bees.

EARNING AND LEARNING CAREER IN SCHOOL

| School Year Ending | Kind and Scope of Work in Educational Program | Hours | "Labor Income" |
|--------------------|--|-------|----------------|
| 1921 | Poultry and Garden... | 1,560 | \$ 650.00 |
| 1922 | Poultry: 325 chicks, 75 ducklings, 100 hens, 20 ducks..... | 1,200 | 345.31 |
| 1923 | Poultry: 300 chicks, 120 hens, 15 ducks..... | 513 | 436.16 |
| | Floriculture: $\frac{1}{4}$ Acre cut flowers and budding plants..... | 444 | 575.60 |
| | Grand Totals..... | 3,717 | \$2,007.07 |

Later Steps in Agricultural Career

James Skinner is a city boy who became interested in agriculture, and during his project summers, carried on poultry, gardening, etc., on vacant lots next to his home. He graduated from this school in 1923, and took some post-graduate work during the winter of 1923-24. During the first year out, he built and operated a 12 x 26-foot greenhouse next to his home.

He is now in partnership with his father, operating a large floral plant; the main house of which is 27 x 98 feet, with connecting houses 12 x 17 and 12 x 8 feet. Their floral shop is connected with the greenhouse and faces on a prominent street. They employ four men.

The total area of the property is three acres, on which they have, in addition to the greenhouse, 80 apple trees, 15 pear trees, and 5 other fruit trees. They also have 60 hens and 4 hives of bees.

They are doing a large and increasing retail business. They employ one graduate regularly and others on part time. Their plant, equipment, and growing stock are worth considerably over \$20,000—not bad for a graduate of four years' standing. He is wedded only to his business.

CASE IV—Edwin Anderson, '20—Norfolk County Agricultural School; born May 3, 1900. Started project with 12 hens, now has 1,700 layers. Father became partner in business in 1925.

EARNING AND LEARNING CAREER IN SCHOOL

| School Year Ending | Kind and Scope of Work in Educational Program | Hours | "Labor Income" |
|--------------------|--|-------|----------------|
| 1920 | Project of 12 hens and 300 chicks at home..... | 101 | \$ 303.37 |

Later Steps in Agricultural Career

Edwin Anderson had been working in a factory but preferred outdoor work. He became interested in poultry and took a special course at this school for one year.

After completing his course, he started a poultry business at home. He soon demonstrated that he could make money, so much so that his father left the factory and became a partner to the boy. He increased his flock as follows:

| | |
|-----------|----------|
| 1921..... | 110 hens |
| 1922..... | 400 " |
| 1923..... | 750 " |
| 1924..... | 1,100 " |
| 1925..... | 1,700 " |
| 1926..... | 2,000 " |
| 1927..... | 1,800 " |

...About 6,800 day-old chicks
1928—Apparently standardized at figures for 1927.

For the season of 1924, the labor income was \$3,600. All products are sold at the farm. Enterprise now carried on by father and younger brother, who have learned the business from him. During past year, Edwin has been looking for independent location in Middle West, has been getting data on California, and has been continuing his earning and learning program by working at poultry-keeping in the localities studied.

CASE V: Edward Dwyer, '21—Weymouth Branch, Norfolk County Agricultural School; born October 17, 1902. Started project with 1 cow, now has 60 head. Buys all feed; milk retailed; cows, tuberculin tested.

EARNING AND LEARNING CAREER IN SCHOOL

| School Year Ending | Kind and Scope of Work in Educational Program | Hours | "Labor Income" |
|--------------------|---|-------|----------------|
| 1919 | $\frac{1}{4}$ Acre Potatoes..... | 153 | \$ 212.48 |
| 1920 | 1 Cow..... | 110 | 227.60 |
| 1921 | $\frac{1}{4}$ Acre Market Garden..... | 390 | 110.21 |
| | Grand Totals..... | 563 | \$ 550.29 |

Later Steps in Agricultural Career

Edward Dwyer of Weymouth is a village boy who became interested in agriculture, and during his project summers carried on gardening and dairying at home. He graduated from the Weymouth Branch in 1921 and since then has conducted a retail milk business.

1922—Working for himself at home; retailing milk, 15 cows. Of the \$2,500 borrowed from his father to start the project, he paid back \$1,100 within one year besides paying all costs of the project and his family living expenses.

Wholesale and retail business:

| | |
|-----------|---------|
| 1923..... | 26 cows |
| 1924..... | 30 " |
| 1925..... | 50 " |
| 1926..... | 50 " |
| 1927..... | 55 " |
| 1928..... | 60 " |

Sells upwards of 650 quarts of milk per day at 15 cents per quart. All sold within radius of two miles from home. Buys some milk wholesale when necessary. Has about doubled his income by selling cows during past year to local buyers who appreciate his judgment in selecting profitable cows.

Of course, our conditions are not unfavorable.

The fewer than 5 percent of our total population live on farms, the density of our rural population of 33 per square mile exceeds the density of the total population of 21 states and exceeds by 2 the average density of the whole

United States; and the total of our rural population exceeds the entire population in several states.

In the value of her crops per acre, our state stands fourth. Only Arizona, Connecticut, and California, with their highly specialized crops of cotton, tobacco, and fruits, stand higher in per acre average crop values. In 1922 our average for such values was \$48.50 per acre, as against \$19.41 per acre for the entire country.

In a little more than a generation the value of farm property in Massachusetts increased from \$110,000,000 in 1870 to about \$300,000,000 in 1920.

The value of our farm products—not including forestry, nursery, and greenhouse products in trees, shrubs, plants, flowers, and other ornamentals—was about \$90,000,000 in 1926.

Our market is matchless.

More than half of our Massachusetts farms are free from mortgages. The ratio of such mortgage debts as exist to the total valuation of farm lands and buildings is about one to three.

Only three other states have a greater percent of farmers who have been on their farms 10 years or more. This state probably leads all others in the percentage who have been on the same farms 25 or more years.

Eighty-eight percent of our farms are owned by their operators. Forty-six other states have fewer farms operated by those who own them than has our state.

Observing the comparative independence and comfort, with fully half of the supplies needed for their households coming from their own land, of our better farmers, our boys have concluded that the individual farmer can do rather better here than in most other parts of the country.

We are much indebted to our state commissioner of agriculture for putting the economically significant figures above cited, and others of like import, at our disposal from time to time. Awareness of the economic situation has spurred our boys on to the notable achievements here illustrated.

Co-operative Night School

Sponsored by Graham Farms and Vocational Agriculture Department

THE night school held at Elnora, Indiana, last year was sponsored by the Graham Farms in co-operation with the vocational agricultural department of the Elnora High School.

The Graham Farms are owned by Mr. Robert C. Graham of the Graham Paige Motor Corporation. Mr. Graham is interested in the agricultural development of Daviess County, his home community. As part of his agricultural program, his organization has erected two cheese factories in the county, one at Washington and one at Elnora. The erection of these plants has stimulated the dairy interest in the county. To help the farmer with the problems arising in this new venture the night school program was sponsored.

Mr. J. C. Larkin, agricultural agent of the Graham Farms, and Mr. A. M. Bishea, vocational agriculture teacher, co-operated in putting on the school. They were assisted from time to time by outside speakers who were specialists in their field of work.

The subject matter was "Dairying,"

placing special emphasis upon breeding, feeding, and management. All lessons were planned to solve definitely the problems suggested by the farmers themselves as being the problems confronting them. The lessons were presented both thru lectures and discussions, supplemented by such motion pictures as could be procured directly relating to the subject. A mimeographed outline of the lesson was handed out at each meeting. At the end of the school the various lessons were written up in detail and mimeographed and bound into a book which was presented for reference to each farmer who attended the course. This feature has been found to be well worth while.

These meetings were held in the Elnora High School building each Wednesday night for a period of eleven weeks. Classes began at 7:30 and closed at 9 o'clock.

The appreciation and interest in this school by the farmers was shown by the regular attendance of the better farmers in the community and their request for another school of this kind during 1930.

Status of the California Teacher of Vocational Agriculture

QUESTIONS frequently raised in other parts of the country as to the status of the agricultural teachers of California are well answered in a report by E. W. Everett which has just been released as a part of the proceedings of the last conference of the California Agricultural Teachers Association. The report is based on records from the bureau of agricultural education of the state department of education.

During 1928-29 there were 180 teachers of vocational agriculture in California, located in 98 schools.

The average tenure of these teachers was 2.64 years in their present positions. Two had been in their present positions for 11 years, four for 10 years, 22 for more than 5 years, but less than 10 years. Sixty-six were new in the schools where they are teaching.

The average California teacher of vocational agriculture has had 5.72 years of teaching experience, tho not all of this was secured in vocational agriculture in every case. Mr. Everett finds that after seven years in vocational agriculture the men who have made a success of the work usually go into other fields.

Including with the 180 regular teachers 20 cadet teachers, it was found that 1 holds the Ph.D. degree, 13 hold master's degrees, 139 hold bachelor's degrees, and 47 hold no degree. In almost every case the teachers without degrees are handling farm mechanics courses where two years of collegiate training only is required for a credential.

California teachers have been trained in 29 different states or foreign countries. Only 36 percent received their training at the University of California.

The range in the salaries of regular teachers is from \$1,800 to \$5,200. The average is \$2,584.42. Three receive \$4,000 or more. Twenty-two receive from \$3,000 to \$4,000. There is but one salary below \$2,000.

Fifty-three of the 98 schools provide mileage at a rate per mile varying from 5 to 12 cents; the average mileage rate is 7.97 cents. Thirty-two schools pay flat sums for mileage varying from \$175 to

\$550 and averaging \$298.13. Nine schools provide a school car for this purpose.

Negative Teaching

C. B. CAMPBELL,
Agricultural Teacher, High School,
River Falls, Wisconsin

IF I WERE teaching alfalfa culture in a high school," said a professor of agronomy in one of our midwest colleges of agriculture in addressing a state conference of Smith-Hughes teachers, "I would begin with the subject of winterkilling. Out of this problem would grow the problems of the proper culture of alfalfa, the preparation of the seed bed, seeding, the selection of hardy seed, etc."

Several years of experience in the teaching profession have caused me to thoroly disagree with the professor's procedure. I question whether the acreage of alfalfa could be increased or the value of the crop as a feed appreciated by such a method of instruction.

Let me illustrate: A teacher in a rural school was conducting a class in spelling. She wrote the words on the board for the class to copy. A certain word was spelled with an "e" and she instructed the class, "This word is spelled with an 'i' by some people but this is incorrect. You must spell this word with an 'e'." Half the class spelled the word with an "i" as might be expected from this negative teaching. It was just another case of "Johnny, don't."

An aged teacher once related an incident from his own life to show the perils of negative thinking. It was in his youth. He rode a velocipede. He would see a stone or an obstruction in the road and would think, "Now, there is a stone in the road. I must not hit that. But I concentrated on the problem I wanted to avoid with the invariable result that I hit the obstruction and was thrown from the high wheel, and it was not until later, when I learned not to think of obstructions but of the clear path ahead, that I became master of the velocipede."

Another incident none the less interesting: I was playing a foursome in a golf tournament. My partner was reputed as a good player. For five holes he hooked and sliced and ran up a magnificent score as far as numbers are concerned. Just before teeing off on the sixth hole he made the remark: "Well, there's a lot of tall grass in the rough. I suppose my ball will go there." I delayed his stroke long enough to explain my psychology of positive thinking, saying that he must think only of the fairway and the ease with which the ball could be driven there.

His game improved from this point but whether it was from a change of thought or just a "break" is a question many would be eager to debate. Personally, I believe positive thinking has the greater influence.

To return to the subject of teaching alfalfa. I would begin by teaching positive facts such as the value of alfalfa as a hay crop and include in this study the yield per acre, number of cuttings per year and the comparative value with other hays. The other problems, liming, inoculation, seeding, harvesting, etc., follow in a variety of arrangements, but the number of fields which produce hay for three, five, and even fifteen years put winterkilling in the background of the problems in raising alfalfa.



Future Farmers of America



Some North Dakota Chapter Programs

J. E. Eastgate Chapter, Larimore—James Erickson, president; Louis Boman, vice-president; Robert Erickson, secretary-treasurer; Lee Stover, reporter; Warren Tewksbury, advisor.

Program of Work

1. Thrift: Every project member to leave at least \$10 for productive uses by the close of the project year.
2. Ninety percent of the enterprises to
3. To have a total investment in farming and savings of \$3,000. be finished by the end of the year.
4. To raise money by entertainments, picture shows, lunch stands, and other means for the benefit of the Chapter.
5. To make a sight-seeing tour of the projects and also important farms and industries of the country.
6. To promote an all-high school party.
7. To promote an exhibit day for the eighth graders. Smith-Hughes students will exhibit work and demonstrate.
8. To contribute \$5 toward sending a local Smith-Hughes stock judging team to Fargo.
9. To elect one or two men each year as honorary members.
10. To hold an annual picnic in July for all Future Farmer members and honorary members.
11. To promote an annual mid-winter fair.

Hazleton Chapter, Hazleton—James Shea, president; Philip Weiser, vice-president; Maynard Sholts, secretary; Arne Dahl, treasurer; Carl Gregory, reporter; Earl Hendrickson, advisor.

Program of Work

1. To help raise money to send the judging team to Kansas City.
2. To help the farmers of Emmons County with the Corn Show.
3. To work with the stock breeders in making a better stock show.
4. To provide money to send the judging team to the state contest, and to pay their \$5 entry fees.
5. Promote high school spirit and help all high school functions.
6. Promote vocational education within the community.
7. As individuals, make ourselves better students, leaders, and men.
8. To promote thrift.
9. Encourage more efforts on supervised home practice.
10. Study the possibilities of a Vocational Fair.

Arkansas to Have Permanent Camp Site

TWO organizations have already offered to donate permanent camp sites to the Future Farmers of Arkansas. Four sites are being carefully considered and others will receive consideration in the future.

Secretary Hyde on Agricultural Co-operation

AGRICULTURE has inherent difficulties which cannot be overcome by the individual producer. It is a far-flung industry characterized by small producing units. Nearly two million cotton growers compete for the markets of the nation and the world. Corn is produced on nearly five million farms. All of these farms are in competition with each other.

Imagine, if you can, the manufacture of automobiles by 2,000,000 small, independent factories. High costs, price-cutting, and financial distress would be the inevitable result. Industry has met this problem by mergers. We cannot merge 6,000,000 farms. We have no desire to do so. The one-family farm is a valuable social unit. Its independence must be maintained, but in maintaining its independence we must remember that we preserve a small producing unit in a society where organization and combination are the rule. The farmer must have help, not only to reduce the competition of his fellows, but to see that social and industrial adjustments do not bear too heavily on him. . . . Agriculture is entitled to a position of equality in the economic structure of America. Thru its own farm organizations, and by its own efforts, agriculture can regain that place, and having gained it, hold it. In that cause, agriculture has the sympathy and the aid of the

government of the United States of America. . . .

"We Americans are at once the most individualistic human beings on earth and the greatest believers in organization. And, why not? . . . The perpetual paradox of organization is that, by the sacrifice of some of his personal rights, the individual finds a greater freedom."—Arthur M. Hyde, Secretary of Agriculture.

Illinois Steps Into the Lead

WITH 127 chapters and an approximate membership of 3,250 boys, Illinois now has the largest Future Farmer group in the country, according to an announcement of State Supervisor J. E. Hill.

Twelve Illinois boys have been voted the State Farmer degree and awarded gold keys.

A state oratorical contest will be sponsored by the state organization.

Future Farmer news notes will be issued each month from the state office.

Illinois has long had a strong state organization of agricultural clubs. The transformation of local units into Future Farmer chapters has taken place only during the past summer and fall.

Future Farmers in Action

THIS is the title of a new book by a capable author, Mr. A. K. Getman, chief in agricultural education of the New York State Department of Education.

The book is addressed to Future Farmers. Its keynote is found in the first paragraph of the introduction:

"Just now, our American farmers face the acute problems of uniting their efforts in co-operative endeavor. One of the great purposes of the Future Farmers of America is to learn to co-operate. This little book has been written to help you make the most of your opportunities in learning to work well together."

There are 115 pages of sound counsel for Future Farmers. The style is one that should appeal to boys. Appropriate quotations from other authors are used. Interest qualities are good.

It appears that this is a book which might well be found in the library of every Future Farmer chapter in the country. It is published by John Wiley and Sons, New York, and sells for \$1.50.

Training Evening School Teachers in Conference Methods

(Continued from page 7)

entire country are now in a very strategic position to assist the Federal Farm Board, if called upon to do so, as well as various local co-operative marketing associations in their own local communities, in conducting on a conference basis their educational programs, providing these teachers have had a sufficient background of training and experience to successfully conduct such conferences.

A DAD AND HIS LAD

When you see a young fellow—an up-standing lad,
Go by in the street, keeping step with his dad;
When the smiles in their eyes as they mix with the crowd
Show that each one is pleased with the other, and proud;
It's a heart-gripping sight, it's inspiring and fine
To know that in life they are bucking the line—
A dad and his lad together.

A lad has his troubles, to him they are real;
Some troubles, perhaps, that he tries to conceal.
But he likes to depend on a fellow who cares,
A fellow he honors—a fellow who shares;
And he feels mighty proud of the chance to confide,
In the big manly fellow who walks at his side—
A dad and his lad together.

The fame of a land is not measured in gold,
Not judged by its mines and the treasure they hold;
It merits distinction and confidence, when
Thruout its dominion are real manly men.
A sight that's heart-gripping, inspiring, and fine,
Is a dad and his lad who are bucking the line—
A dad and his lad together.

—H. H. Biggar.

(Courtesy of Hoard's Dairyman)



Farm Mechanics Department



A Trip to the Lumber Yard

By W. P. BEARD,
State Supervisor of Agricultural Education,
South Dakota

A VERY satisfactory farm shop lesson which has stood the test of time is the class trip to the lumber yard. When a group of boys are just starting their shop work such an introduction to the building materials with which they will deal is essential. Having worked in a lumber yard one summer while in high school, the writer has taught many things in shop courses which were learned that summer.

In the first place, every farmer patronizes a lumber yard. Most of them do not know how to call for what they want. To figure out a bill of material for even a henhouse is beyond them, not only in the matter of lumber required but other materials which may be necessary, such as cement, tile, or brick, etc.

Few people realize that in most lumber yards 2 x 4's vary in price per board foot according to length and that in some cases the 10-foot length sells for the same as the 16-foot length.

In some yards which are located at a considerable distance from the mill, rough lumber sells at a higher rate per foot than does dressed lumber.

Have you ever noticed "splintery" boards appearing in a floor? Someone did not watch closely for flat and vertical grained wood.

The average buyer does not know the standards or grades of lumber carried by the local lumber yard. There are also many terms and abbreviations used by the lumber dealer which the young farmer needs to know.

Most lumbermen will take a delight in going over their stock and explaining it to a class. The teacher, of course, should tell the lumberman the important points which he wishes to have explained; some definite outline should be followed. Most teachers will not need to bother the dealer after the first trip.

The members of the class should take notes for much will be brought out during the trip which otherwise may be forgotten afterward. These notes should be carefully written up for future use.

This future use should be in connection with school and home shop work. Several shop periods may well be used in further explaining and fixing points in mind. Ability to call for and identify various kinds and grades of building material should be developed by the boys.

Below is a suggestive outline which may be used for a trip to a lumber yard:

- I. Lumber in Stock—kinds of wood; grades of lumber; standards; dressed and rough; names and terms used; prices.
- II. Sizes of Lumber—dimension lumber; standard and actual sizes; coverage of various boards.
- III. Shapes—(ship lan; drop siding; flooring; ceiling; well curbing; wagon box flooring, etc.) reasons for shapes; prices.
- IV. Shingles and Lath—sizes; number per bunch; coverage; how measured; grades; prices.
- V. Roofing and Building Paper—kinds; weight; thickness; grades; coverage; prices.
- VI. Cement and Lime—net weight per sack; volume; price.
- VII. Tile and Brick—kinds; sizes; price.
- VIII. Posts—sizes; where measured; standards; grade.

HAVE YOU CONTRIBUTED TO THE FARM MECHANICS DEPARTMENT?

Since March of this year, we have been maintaining a department for Farm Mechanics articles in Agricultural Education. During this period many splendid articles have been sent in by workers in the vocational agricultural field on this important phase of agricultural education. Future issues have much in store along this line. The editor of this section, at this time, wishes to express his appreciation to all who have taken time and trouble to prepare "copy" and submit it for publication. Many splendid ideas have been passed on to those in service and a further appeal is made to others having worthwhile material to submit it at any time. It is certain that more splendid material is in the "offing." Remember this is a medium of exchange for experiences and ideas on all phases of farm mechanics teaching.

Articles prepared for this department should in the future be addressed to:
W. A. Ross, Farm Mechanics' Editor,
Agricultural Education, 200 New Jersey
Avenue NW, Washington, D. C.

That Disorderly Farm Shop

[This article appeared some time ago in The Colorado Vocational Messenger and has since been reprinted in a few other State News Letters. We consider it worthy of being brought to the attention of all farm mechanics teachers and it is reprinted, "that he who runs may read."]]

WE HAVE expressed our opinion of the disorderly farm shop in caustic language more than once, and as distasteful as the task is, we are moved to speak again.

The first requirement of every farm shop should be order. No man has a right to consider himself an even passable farm shop instructor who does not insist upon and enforce orderliness first, last, and all the time. One of the most important things a boy can learn from his farm shop course is orderliness. Disorder, poor tools, and poor workmanship are triplets, and one is rarely found present without the other two.

The shop teacher who lets shavings, coal dust, and rubbish accumulate on the floor, who permits tools to be left about the shop, who has no systematic arrangement for storing lumber and other materials, is in the same class with the housewife who keeps a kitchen with a dirty stove, a greasy floor, an open garbage pail, food scraps scattered about, and a sink with a ring of grease around it."

A unique type of hog house was built by the boys of the Fairview, Kansas, vocational agriculture department last year. As a class project this class fattened 25 head of fall pigs. To meet the needs of this project the boys and their instructor designed and built a 10 x 20-foot shed roof hog house. The building was 8 feet high in front and 6 feet in the rear. The unusual feature was a straw loft, placed at a height of 6 feet, with ventilators above. During the severe cold weather last winter the house was at all times warm yet well-ventilated and free from the "steaming" common in hog houses. Considerable interest in this feature of hog house construction

is being evidenced by the farmers of the community.—R. E. Regnier, Instructor, Vocational Agriculture, Fairview, Kansas.

Does Your Community House Its Machinery?

W. A. ROSS

AS "Old Man Winter" shuts down, he undoubtedly chuckles at the amount of farm machinery which can be seen exposed to the weather and which will not see protection of any kind this season. Yet the same farmers who have left the machinery where it was last used will surely expect good service from it next season, and will expect to retire it at a "ripe old age." Thousands of dollars are spent on replacements each year, made necessary thru such exposure. The old adage, "A good piece of machinery lasts," only holds true when coupled with the corollary, "when properly used and protected from the weather."

Just what difference does it make in the life of a farm machine when housed, as compared to when the machine is exposed to the weather? Several experiments have been actually conducted and concluded within the last few years which give us some very accurate data on this matter.

From data obtained some time ago by the University of Missouri, the following figures were secured on the life of common farm implements when housed and when left exposed to the elements:

| Machinery | Housed | Exposed |
|-----------------|----------------|----------------|
| Walking Plow | Lasts 20 years | Lasts 15 years |
| Gang Plow | Lasts 20 years | Lasts 10 years |
| Disc Harrow | Lasts 15 years | Lasts 8 years |
| Binder | Lasts 12 years | Lasts 5 years |
| Mower | Lasts 12 years | Lasts 7 years |
| Wagon | Lasts 24 years | Lasts 10 years |
| Corn Planter | Lasts 8 years | Lasts 4 years |
| Corn Cultivator | Lasts 20 years | Lasts 8 years |

It is quickly evident from these few figures, which are substantiated by many similar studies with comparable results, that the farmer who protects his implements by proper housing is actually doubling the life and thereby the service of such equipment.

Much emphasis is now being placed on the economic phases of instruction in vocational agriculture. What better teaching can be done in this connection than to instill in "Future Farmers" the benefits of proper housing of farm machinery? It is an object lesson in thrift and the first elementary step toward the successful operation of a farm—the saving of what one already owns.

Dr. D. C. McIntosh, head of the department of agricultural education of the Oklahoma Agricultural and Mechanical College, has been chosen dean of the graduate college just established there.

What Others Think of Us

An Inspirational Letter

THERE come times in the experience of every teacher when he wonders whether or not he is accomplishing anything worthwhile. It is frequently difficult to feel that any good is coming from long hours of conscientious and intelligent labor. He becomes discouraged, and is inclined to say, "Oh, what's the use?"

The trouble is that often the most valuable results of our efforts are of an intangible sort. The letter which follows is a copy of one actually written by a vocational student to his former teacher. Such a letter could have been written many times to many teachers. The recipient of this particular letter keeps it in a drawer of his desk, and during periods of discouragement and doubt, reads it, in order that he may secure renewed confidence and courage. (The names and locations are not those of the original letter.)

Pleasant Valley, Pa.
January 20, 1929.

Dear Friend Richard:

Just a few lines to let you know that I'm still kicking and to thank you for that Christmas card. I've been going to write for the past year or so but you probably know as well as I do how the time seems to fly and so many things go undone.

Mother told me that you stopped in last summer when you drove thru and I was very sorry that I could not have seen you. I would have appreciated it very much.

I am still staying with the folks which means, of course, single. Everything pertaining to the farm is coming very nicely, and I like it better every year. I have 6 purebred Holsteins now and 10 real good grades and I expect by the time I finish writing this letter to have another (judging from the way things looked when I left the barn an hour ago). I'm getting the highest per cow production of any of the farmers around here. Just now I'm without a silo and nearly half my cows are heifers with first calves. Perhaps when I've been in the business another ten or fifteen years, more or less, I will have some fair producers. That is if I don't get too interested in berries during the summer. They are lots of fun, too. I sold \$1,200 worth from 1 1/2 acres last summer—had some dandies. And boy, the way the alfalfa grows up on my hills.

It's all so interesting I don't know what part of the work I like best; perhaps it is the diversity of the thing that makes it so. Starting in early June the strawberries come on, then immediately following are the raspberries, then comes sweet corn for market and that is planted at intervals so that it starts the first of August and lasts until frost; and of course there are the three crops of alfalfa to harvest in the meantime and the corn and oats. (I only raise oats when I need a nurse crop for alfalfa, tho.) I have a small vineyard started, too. (And a few currants and gooseberries, just for home use.) Then there are the cows to care for every day in the year, so there is something all the time to keep a fellow interested. I'm harvesting something all summer from the time

A MASTER FARMER'S TRIBUTE

"I feel unworthy of being called a Master Farmer. If anything put me in that class, it was the teaching of a man with a winning personality, considered one of the best (ablest) instructors in the Northwest. He loved his work and the boys who came under his supervision took great interest in their work. He is a true Christian. He made the boys understand that it was also important that they become Christian gentlemen. My boy finished the Smith-Hughes High School course under this man. He is at present our state supervisor of the Smith-Hughes system. This man made real farmers out of my boys and the boys have made a farmer out of their dad."

[Note: This is one of a number of similar tributes received by one who has been investigating recently the education of Master Farmers.]

I start to sell strawberry plants in April until it freezes, and while I'm harvesting one crop I can enjoy watching the others grow. And I'm the boy that enjoys it, too. I'm still driving one of the school busses, which is rather a nuisance at times but fits in pretty well with my chores in winter and adds \$50 per month to my income. I enjoy that work, too. The associations with the children help to keep me young. I've had that job for over six years now but don't expect to continue much longer. I'm getting my farm organized so that my time is more valuable there than driving a bus. It served as a pretty good supplement for the first year, however. I just looked in my account book and find that my receipts so far this month are \$480.77 and expenditures \$132.26, leaving a pretty fair balance for a one-man concern in a supposedly slack month on the farm.

Please excuse me if I seem to be indiscreet in telling so much of my business, but it is to you that I owe so much of what little success I'm enjoying that I know you will be interested in some of my personal affairs. When I started to high school I didn't know what I wanted to do when I got there. Nor did I know when I started the "Ag" course in my junior year. It was not until I had taken a few months of work under your direction that I became really enthusiastic about farming. People used to tell me to go to school and get an education so I wouldn't have to be a farmer, and that's what I started out to do. I just drifted into the "Ag" course because I thought it would be easier for me than some of the others, and it was not until after I had become part of the class and taken some of those trips in practice judging that I received the inspiration and that inspiration is very much alive yet. It is almost with tears in my eyes that I look back at the hours spent in the Ag class at — and on the trips that we took and the inspirational talks that you used to give occasionally, and as the years go by I can see the truth of your statements. How well I remember the day you told us that if we expected to go to farming to make money we had better not attempt it, but if we were going to farm because we liked it, then hop to it and we would make money in spite of ourselves. Then again you talked about perseverance as one of the principal requirements of a successful

man and I have found that out too, especially when launching out upon a business enterprise that requires considerable capital and you haven't any. The first years are likely to prove quite trying and will require some perseverance. But then the joy after you have crossed the road and strike clear sailing.

I don't suppose you realized it at the time but if the things you said and the effort you spent had as much effect on the rest of the class as on me you can feel that your time there was well spent and was not unappreciated. I've spent so much time expostulating about myself that I have neglected to inquire about you and the family, but I hope that you will find time some day in the near future to drop me a few lines and tell me all about the twins and everyone and everything. I'm sure I would be very much interested and would appreciate a letter should you find time to write one.

The hour is getting later now, and I must go to the barn again. So will close hoping you all success and happiness for yourself and family.

Sincerely yours,
Edmund Chadworth.

Community Tributes

DURING my meanderings up and down the state of Illinois, attending father and son banquets this year, I have kept my ears "tuned in" to hear the comments of the farmers as we have mingled about the festal boards. The universal comment of these farmers about vocational agriculture is very gratifying to us who work in this field. Such remarks as the following are frequently heard:

"Vocational agriculture is the best thing that ever came to our school and community."

"Our teacher of agriculture is bringing splendid influence for good to our rural boys."

"It would be a great calamity to our rural community if we should lose our present teacher of agriculture."

"Our department of vocational agriculture is bringing a new prosperity to the whole life of this community."

"Our teacher of agriculture is the hero of our rural boys in this community."

And so the comments run. What a work of service this is. Men who love boys and the farm interests are finding in vocational agriculture a rich life of growth both for themselves and for those they serve.

"Teachers are the most gullible people on earth, next to parents, in questions dealing with the results of their teaching. A pupil's smile, a compliment, well timed, a tactful reference in a paper, will usually go far toward persuading a teacher that he is efficient when, if he could only know the real situation, he would find what a miserable failure he is. We must know the facts and never be satisfied until we get them."—Arthur J. Jones, University of Pennsylvania.

Idaho Future Farmers are issuing a news letter. The first issue for 1929-30 appeared in October.

A Missouri Instructor's Experience

J. L. PERRIN, Salisbury, Missouri

THE first part-time class in Missouri under the Smith-Hughes law was conducted at Milan, Missouri, during the winter of 1926. The class in agriculture was organized and taught by the writer who was then the local instructor of vocational agriculture of that place. Before attempting to start such a course he made a survey of the surrounding territory to determine the need of part-time instruction. It was found that there were more than twenty boys in the community of the proper age who should be receiving part-time training. It was a difficult task to convince this class of boys and their parents that they needed the proposed training. The more ambitious or more fortunate farm boys were already enrolled in the high school courses in vocational agriculture.

Several methods were used to secure students for the part-time class, but the most effective method was the personal interview with the prospects by the vocational instructor. The type of work was new in this community and difficult to explain to boys who would rather "hunt and trap" during the winter months. Ten boys were enrolled the first of January and six of them completed the course. The other four boys quit to begin spring farm work. This first part-time course was of eight weeks duration. January and February were selected as the months when farm work would be less pressing in Missouri.

In determining the kind of courses to give, due consideration was given to the major enterprises in the community and to the interests and needs of the boys enrolled in the course. Pork production was the course in agriculture finally selected. In addition to the agricultural course, three related courses were offered, viz., farm arithmetic, rural English, and citizenship for the farmer. The related courses were taught by other high school teachers co-operating with the instructor of vocational agriculture.

The daily schedule was planned so that all the part-time classes came in the afternoon. The afternoon was selected as the best time to give the class as it allowed them the full morning to work at home. Forty-minute periods were devoted to each of the four subjects daily for the five school days of eight weeks. Little home work on school assignments was required of this group of boys. Instead their school periods were a combination of supervised study and recitation.

Each boy enrolled in the part-time course conducted a supervised practice project on his home farm. In their project work the boys put into practice some of the approved practices which they had learned during the course in school. Several of the boys became so much interested in their work that they enrolled in the regular high school class in vocational agriculture the next year.

The next part-time class to be conducted by the author of this article was at Salisbury, Missouri. About the same procedure as before was used in securing the class. Due to the limited time at the instructor's disposal, only two subjects were offered. Pork production was again selected as the agricultural course and farm shop the related course. Both courses were taught by the agriculture

instructor. The class was held the first two periods in the afternoon. The problem method was used in teaching the course. Projects consisted of purebred Duroc Jersey guts and litters raised according to the McLean system of swine sanitation. One boy also conducted a supplementary project with Reid's Yellow Dent corn.

My general impression from my experience with part-time work is that there is a big field for this type of work in Missouri. The greatest difficulty seems to be in getting boys of the type who do not attend high school to take an interest in any kind of school work.

Recent Publications

BROYLES, W. A., and WILSON, A. D. *A Workbook for Students in Poultry Husbandry*. Ginn and Company, Boston. 1929. 94 pp. 80 cents.

THE unit of the workbook is the contract; there are 20 of these. In the back of the book is a series of objective tests, one for each contract, except four.

Such a workbook has the strengths and weaknesses of any printed set of contracts or project outlines. It is probable that these are not sufficiently adaptable to individual needs nor are they likely to develop initiative in the student. There are in the contracts, however, many helpful teaching suggestions, diagrams, references. A strong point is that the contracts have been given a trial with some thousands of students. —F. W. L.

One hundred students in four-year courses in agricultural education at Iowa State College have taken up the Future Farmer movement for study thruout the year in the Agricultural Education Club meetings. The club will also help to promote the movement in various ways.

All five sections of Iowa teachers voted at their fall conferences to hold camps for their students during the coming summer. Three districts will hold their own camps; the other two districts will co-operate.

Methods of Teaching in Vocational Agriculture

(Concluded from page 6)

ing the boys to want to take a project, and since they need to discover project possibilities in the enterprises carried on on their home farms, he should select those farm problems for study in the early weeks of the course that will enable the boys to get an insight into the project possibilities of a variety of enterprises.

Order of Study

If the teacher decides that the class should take up "Culling the Farm Flock for Egg Production," which is a part of the Major Farm Problem, *Improving Livestock and Poultry*, perhaps he should also decide to lead the boys to see the value of selecting a breed of farm poultry which is also a part of the major farm problem, *Improving Livestock and Poultry*.

After culling and selecting breeds of poultry, perhaps it would be wise for the teacher to suggest to the class some of the possibilities for study in the other parts of the problem, *Improving Live-*

stock and Poultry (Making forward connections).

Because it is necessary to open up several fields of study in order to enable the boys more intelligently to select their projects, he may very well take up the problem of selection of varieties of crops which is a part of the Major Problem, *Improving Plants*.

Suggestions for the Teacher

The class has done the following things:

1. Gathered and classified data on home farms.
2. Compared the home farm data with teacher's farm survey summary data and with data from similar farm situations in other sections of the state.
3. Discovered weaknesses in farm practices on home farms and other farms in the community.
4. Classified these weaknesses in home and community farm practices leading to the statement of local farm problems.
5. Agreed that these farm problems need to be studied.
6. Studied parts of at least two farm problems.

While the class has been doing the things just outlined the teacher should be:

1. Looking out for project possibilities on home farms.
2. Watching for expression of boys' interests.
3. Talking with fathers about boys' projects.
4. Talking with boys when they show interest in certain phases of the program.

Further Suggestions

5. When some of the boys decide early to take a project in order to contribute to the solution of the Major Farm Problems, announce their decision to the class as a means of creating interest.
6. If some of the boys make a decision very early in the course, perhaps the announcement of the decision to the class should be deferred.
7. When a sufficient number have made decisions to justify group discussions, the teacher may express his appreciation to the class, and raise this question:

"What do we hope to accomplish with our projects?" This should be made specific for the cotton group, poultry group, etc. Each group agrees on purposes.

Other Questions

8. How large should these projects be in order to accomplish the purposes we have agreed upon? This should be made specific for each group. (Each group should reach a decision.)

9. What will we have to do in order to accomplish the purposes we have agreed upon? (Each boy decides what he will have to do.) Note: While the student is considering the things to be done in order to accomplish the purposes of his supervised practice program, the teacher should bring to his attention the fact that the boys had agreed that each one was to contribute something to the solution of the Major Farm Problems of the community.

10. What plans do you need to make in order to do properly the things you have decided to do? (Students work out project plans.)

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